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ABSTRACT

This collection of abstracts is part of a continuing series providing information on recent doctoral dissertations. The 19 titles deal with a variety of topics, including the following: (1) the relationship between the use of intonation and reading comprehension; (2) developmental and information processing factors in second and third graders' comprehension of cause-effect relationships; (3) the script schema in children's comprehension and memory; (4) the effect of metacognitive strategy training on critical reading ability; (5) inferencing, script recognition, and short story comprehension; (6) the interaction and influence of the semantic features of text on comprehension; (7) inferential and literal comprehension after oral and silent reading; (8) relationships among three standards of error detection for comprehension of expository test; (9) the relationship between ability to classify and level of reading comprehension; (10) student cognitive processes with respect to selected Algebra I word problems measured by means of a constructed reading test; (11) the effects of illustrations on comprehension and inference by differentially skilled readers; and (12) the use of cumulative cloze procedure to investigate contextual build-up in deaf versus hearing readers. (HOD)

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Reading, Comprehension, and Memory Processes:

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Burden, Jacqueline Hale
EXPLORATION OF A RELATIONSHIP BETWEEN ABILITY TO CLASSIFY AND LEVEL OF READING COMPREHENSION

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THE RELATIONSHIP BETWEEN THE USE OF INTONATION AND READING COMPREHENSION

Order No. DA8518013

ANDREWS, DEBORAH ANN, PH.D. *University of South Carolina*, 1985. 94pp. Major Professor: Paul Conrad Berg

The purpose of this investigation was to determine if there is a relationship between the use of intonation in oral reading and reading comprehension. This relationship was examined between reading comprehension and the elements of intonation--pitch, stress, and juncture--individually and collectively. A related problem was to determine the relationship between reading comprehension and identifying meaningful units within sentences. Paralleling syntactic structures, meaningful units are groups of words processed together during reading as a result of appropriate use of intonation.

The subjects who participated in the study were 47 fifth graders. The Reading Comprehension subtest of the *Stanford Diagnostic Reading Test*, Brown Level, Form A was administered to measure the variable, reading comprehension. To determine the students' use of intonation in oral reading, an instrument was constructed that included typical language structures that fifth graders are expected to be able to read that convey the intended meaning. A similar instrument was constructed to measure the students' abilities to identify meaningful units. To insure that students' problems in using appropriate intonation in reading were not language problems, an instrument designed to collect a sample of oral language was constructed and administered.

Two raters, who have linguistic backgrounds, were chosen to rate the students' use of intonation in the oral language and oral reading samples. After completing a series of training sessions, they listened to tape-recorded oral language samples and, using a rating sheet that addressed the elements of intonation individually, rated each student's use of intonation in oral language. The raters also listened to tape-recorded oral reading selections and determined the points of inappropriate use of stress, pitch and juncture by comparing the students' use of intonation to a predetermined key that cited the appropriate use of stress, pitch and juncture. The resulting scores were raw scores for each element indicating the number of instances that the student deviated from the predetermined key and a raw score of the totals for the three elements. Using a predetermined key that identified the appropriate meaningful units, a raw score of the number of correctly identified meaningful units was the resulting score.

Through calculated Pearson Product-Moment Correlation Coefficients, it was found that there is a significant relationship between reading comprehension and the use of the elements of intonation--pitch, stress and juncture--individually and collectively, and between reading comprehension and identifying meaningful units.

EXPLORATION OF A RELATIONSHIP BETWEEN ABILITY TO CLASSIFY AND LEVEL OF READING COMPREHENSION

Order No. DA8513887

BURDEN, JACQUELINE HALE, PH.D. *Michigan State University*, 1985. 98pp.

This study investigated whether elementary school children who can classify at a higher level are also able to comprehend reading passages at a higher level. Also explored was the predictive value of the ability to classify and IQ for level of reading comprehension.

The study provided data on elementary school children in grades 1 through 4 over a four-year period. The independent variable in this study was the ability to classify. Dependent variables included reading comprehension, IQ, grade, and sex.

Results showed that: (1) The ability to classify and reading comprehension were correlated. (2) The ability to classify was a better predictor of the level of reading comprehension than was IQ. (3) There was no difference between the classification abilities of males and females. (4) IQ was not related to the grade of acquisition of Stage III classification skills. (5) Classification skills increased with grade level. (6) There was no significant difference in reading gain scores and classification stage gains from Stage I-II, II-III, or I-III within a period of one year compared to those who did not change stages within a period of one year.

DEVELOPMENTAL AND INFORMATION PROCESSING FACTORS IN SECOND AND THIRD GRADERS' COMPREHENSION OF CAUSE-EFFECT RELATIONSHIPS

Order No. DA8507236

DAHLBERG, LUCY ANN, PH.D. *The University of Wisconsin - Madison*, 1985. 232pp. Supervisor: Wayne R. Otto

This study was designed to test the effects of developmental and task complexity factors on second and third graders' comprehension of cause-effect relationships. The factors were defined in terms of alternative cognitive theories in order to generate systematic knowledge of primary grade children's causal understanding as well as to test the ability of the theories to account for comprehension skill performance. The developmental factors (age and sex) were defined by Piaget's theory of causal understanding, and the task complexity factors (processing mode and linguistic context) were defined by Kintsch's information processing theory of text comprehension. The effects of the alternative sets of factors were tested simultaneously in the same children in order to determine the factors' relative and combined influence on children's causal understanding.

Nine expository passages about episodes in the lives of animals were written to incorporate cause-effect relationships expressing physical causation. Sixty-eight subjects (17 males and 17 females at each grade level) listened to, orally read and silently read the passages in which the cause-effect relationships were expressed explicitly or implicitly with cause and effect in the same, adjacent or separated sentences. The effect premise was used to form the stems of *why*-questions which probed for causal agent and causal action information.

Planned comparisons were used to test the theoretically determined alternative hypotheses regarding the main effects and interactions of the developmental and task complexity factors. Two main effects, age and linguistic context, had significant influence on the children's causal understanding.

The significance of the age factor and lack of interaction with any other factor lends support to the prediction of a significant developmental difference in causal understanding between second grade (pre-operational) children and third grade (concrete-operational) children. The significance of the linguistic context factor and lack of interaction with any other factor supports the prediction that comprehension of discourse level semantic relationships is strongly affected by complexities of linguistic expression. These results suggest that both the developmental and information processing theories are useful in accounting for variation in children's comprehension processes.

EXAMINING THE INFLUENCE OF EDUCATIONAL COGNITIVE STYLE ON READING COMPREHENSION

Order No. DA8502789

DAVIDSON, EDWARD BOOTH, PH.D. *The University of Michigan*, 1984. 252pp. Chairman: David Starks

Fifteen third grade students wrote one structured and one unstructured story using the language-experience approach to reading. Stories were dictated and transcribed. The mode of understanding of each story was determined hy a panel of educators and an educational cognitive style map was developed for each student. High, average, and low comprehension scores were determined for each student using the Teaching Upper Grade Students (TUGS). The panel listened to tape recordings of the students reading the stories and with a transcription before them noted comprehension miscues (oral reading errors) based on Goodman's miscue analysis. These comprehension miscues were the dependent variable. The elements of educational cognitive style map of the student and the mode of understanding of the story were matched at four levels. Analysis of variance was used to test the significance of relationships and interactions of Story, Match, and Comprehension.

Findings indicate that there was a statistically significant effect of Story, Comprehension, and Match. There were no statistically significant interactions.

Children made the least number of comprehension miscues when reading a structured story generated using the language-experience approach to reading. Students with higher comprehension level made significantly fewer Goodman reading comprehension miscues. A child made the least number of Goodman comprehension miscues when the child read an experience story dictated by himself/herself, and when a child read an experience story dictated by another child whose educational cognitive style was similar to his/her own. The higher the degree of educational cognitive style match the student had with the mode of understanding of the story, the lower the number of Goodman comprehension miscues. The higher the degree of educational cognitive style match between the reader and the written materials, the greater the degree of comprehension.

It is recommended that the educational cognitive style match between the reader and the written materials be considered as a factor to enhance reading comprehension and that the language-experience approach to reading provides written materials in a mode of understanding compatible in match with the educational cognitive style of the reader.

INTEREST IN READING: A TEST OF KINTSCH'S MODEL

Order No. DA8515620

DEUTSCH, TONI SUE, PH.D. *City University of New York*, 1985. 163pp. Adviser: Shirley Feldmann

According to a model of reading interest (Kintsch, 1980), the cognitive interest of a text results from an interaction between three factors: (1) prior knowledge of the subject matter; (2) predictability of the text; and (3) postdictability, or whether the text as a whole makes sense. The design of the study was a 2 x 2 x 2 factorial with five dependent variables. The experimental material was a fable which was adapted for the eight conditions.

Subjects rated the fable for interest and for comprehensibility. Propositions from a dictated recall protocol were counted as a measure of learning. As a second measure of interest, subjects were asked whether they would like a second story to read. A second measure of comprehension, taken from the recall protocol, was a judgement as to whether the subject understood the point of the story.

Scores on a standardized reading test were used as a covariate. This was found to have had no effect on the interest measures, but significant effects on all of the learning and comprehension measures.

A significant main effect for predictability was found on both the Interest Rating and on the Behavioral Interest Measure. On both, moderate predictability was more interesting than low predictability. A three way interaction was found on the Behavioral Interest Measure.

On the Learning Measure, a significant positive main effect was found for predictability. An interaction between predictability and postdictability was also found. In addition, subjects were found to have mentioned the postdictable moral significantly more often than they mentioned the nonpostdictable one. In the comprehension measures, both predictability and postdictability had significant positive effects.

Significant positive correlations were found between the Interest Rating and the Comprehension Rating, the Interest Rating and the Comprehension Measure, and the two interest measures. Significant positive correlations were also found between the Comprehension Rating and the Learning Measure, and between the Comprehension Measure and the Learning Measure. The two comprehension measures were significantly correlated with each other.

A STUDY OF STUDENT COGNITIVE PROCESSES WITH RESPECT TO SELECTED ALGEBRA I WORD PROBLEMS BY MEANS OF A CONSTRUCTED READING TEST

Order No. DA8506791

EWING, DAVID EUGENE, PH.D. *Kansas State University*, 1984. 186pp.

There are three inseparable members of word problems: the cognitive, problem-solving, and reading abilities of the student. The purpose of this research is to study the cognitive levels of students with respect to Algebra I word problems by means of a constructed reading test.

The test was constructed by first selecting seven types of Algebra I word problems: age, coin, simple number, complex number, same distance, different distance, and round-trip distance word problems. Approximately, three problems were selected for each area at random. Then various reading questions were constructed about the problems in order to examine student cognitive processes. There were six cognitive areas examined: explicit, scriptually implicit, and implicit cognitive levels; previous skills and the main question cognitive areas; and the final solution to the problem.

Subjects consisted of Algebra I students in randomly selected classes in Northeast Kansas. Some students were required only to solve the word problems (the Solve group), and others were required to answer the reading questions as well (the Read & Solve group). Each of 204 students was randomly given six or seven of the word problems to solve.

T-tests and Chi-square tests were computed in the analysis of several comparisons.

There were five conclusions drawn from the study. First, a student's gender, year in school, size of school, or letter grade in Algebra I had no significant difference in the six cognitive areas. There were no significant differences in the percentage of solution scores between the Solve group and the Read & Solve group. Thus reading questions neither hindered nor helpfully "prompted" the student. Third, there was a significant difference in the ability of the student to solve types of word problems and also, to a lesser degree, solve their reading questions. This suggested that the difficulty of a problem may be related to the cognitive level that the problem requires. Specifically, it was determined that there is a dependence between the student's implicit cognitive ability and his problem solving ability. The final conclusion was that a cognitive reading test on Algebra I word problems could be successfully constructed.

THE SEMANTIC FEATURES OF TEXT: THEIR INTERACTION AND INFLUENCE ON COMPREHENDING

Order No. DA8507850

FEATHERS, KAREN M., ED.D. *Indiana University*, 1985. 786pp. Co-Chairpersons: Jerome C. Harste, Carolyn L. Burke

Research in the last ten years has begun to focus on text as a complete semantic unity. A variety of techniques for viewing text from this new semantic perspective have been proposed. Research using these techniques suggests the viability of approaching the reading process from this perspective. However, because of materials and procedures used and a focus on comprehension as measured by recall and recognition, these studies leave unanswered the question of the feasibility of applying the procedures to longer texts as well as the more important question of how the semantic features interact and influence the actual process of reading. This study investigated the impact of semantic features of discourse on in-process reading behavior as measured by the Reader Miscue Inventory. A 1300 word story was analyzed using six different techniques (propositional analysis, macrostructure, story schema, cohesion analysis, propositional mapping, and macrostructure, story schema, cohesion analysis, propositional mapping, and conceptual chaining). Twenty fourth grade subjects read the story orally and retold it. Crosstabulations, multiple regression analysis, and factor analysis were used to consider the semantic features in relation to subjects' reading behavior. Results suggest that these features do influence reader behavior, but that this influence is highly interactive in nature. That is, reading behavior is related not to one semantic feature but to multiple and complex patterns of features. These findings are significant since they suggest a need to reconceptualize current views of language processing and text evaluation.

THE EFFECTS OF FAMILIARITY, READING LEVEL AND PRACTICE ON SEMANTIC RESPONSES TO SIMULTANEOUSLY PRESENTED AURAL AND VISUAL STIMULI

Order No. DA8517857

HALL, RICHARD WESLEY, PH.D. *University of Wyoming*, 1985. 81pp.

In an investigation of the effects of three variables on the acquisition of automaticity in verbal processing, thirty sixth and seventh grade students (Stanford Achievement Test Reading Battery scores 12.3 - 3.3; $\bar{X}$ = 7.6, SD = 2.7) performed an aurally presented verbal decoding task concurrently with a visually presented verbal decoding task. Each student participated in 8 thirty item trials over a three day period. Stimulus presentations were directed by a computer program. Stimulus words were either familiar or unfamiliar based upon a frequency of occurrence scale. Reading level based on scores from a reading skills battery served as a covariate. Reaction time in the decoding task was the dependent variable. Results significant at a 0.001 level in both decoding tasks were: RT diminished with trials, familiar word RT were more brief than unfamiliar word RT and dual task condition RT were longer than RT in single task condition. As anticipated, reading level correlated inversely (0.05) with RT.

RELATIONSHIPS AMONG THREE STANDARDS OF ERROR DETECTION FOR COMPREHENSION OF EXPOSITORY TEXT

Order No. DA8506535

HENRY, DARRYL QUINN, PH.D. *University of Maryland*, 1984. 94pp. Supervisor: Dr. Ruth Garner

This study examined the relationships among performances by 72 proficient sixth- and seventh-grade female readers (36 per grade) on the three standards used to evaluate comprehension. The researcher expected that error detection by types would occur with a different frequency than that suggested in the literature (Baker, 1983).

Internal and external inconsistencies and nonsense words were embedded in each of three expository texts. There were three versions of each text for a total of nine. Each error by type was inserted in approximately the same location across texts. The passages and error types were systematically ordered to randomize the presentation. Each subject received only one instance of each type of error. Prior to reading each text silently at their own pace, subjects were told explicitly of the existence of errors and were instructed to point them out to the trained assistant assigned to them. The subjects' responses were scored 0 or 1. Whether or not the errors were detected, the subjects were given a four question multiple-choice task and asked to recall the answers. The questions were not scored but examined as supplementary data. This procedure was repeated until all three texts per subject were presented.

Using nonparametric tests, the data were analyzed to test the nature and degree of relationships for detection of error types. A phi coefficient for 2 x 2 contingency tables was used to test for independence of detection of error types at each grade level and for the combined group. Then *t*-tests were applied to the phi coefficients to test for equality of correlation coefficients on the same group of subjects. In addition, *F*-tests were run to determine the equality of correlations for grade groups. Finally, McNemar's chi square test was used to test for equality of response on correlated dimensions.

The research hypotheses were upheld in part. It was found that internal and external inconsistencies were dependent pairwise. Contrary to reports in the literature, nonsense words were located most infrequently. An important instructional implication is that attention to single words is an inappropriate teaching tactic. These results lend credence to the holistic approach to teaching reading (Smith, 1982) as being more appropriate for proficient readers.

INFERENCING, SCRIPT RECOGNITION AND SHORT STORY COMPREHENSION

Order No. DA8502714

LA PETER, SANDRA, ED. D. *Yeshiva University*, 1984. 425pp.

This exploratory study examined readers' recalls for a story's script, and the patterns of key inferences. The story, "Man with a Problem" by Donald Honig, was based on a script for revenge, and used certain stylistic devices in the two segments containing most of the inferences necessary for script recognition. These stylistic devices were interior monologue with flashbacks and a surprise ending signalled by nominative of address and italics.

The story was read and recalled by 150 male high school students who were also given a structured probe, and asked questions relating to their metacomprehension. The retellings and probe responses were analyzed for the recall of the script, the 29 key inferences, and the quantity of accurate details recalled.

Findings. (1) There was a significant difference in the number and pattern of key sets of inferences recalled by those with and without script recognition (Ho 1). (2) There was no significant relationship between recall of acurate details and recall of key sets of inferences, and recall of the script (Ho 2, Ho 3). (3) There were significant differences between those with and without the script with respect to the recall of the 29 key inferences in general (Ho 4), those in the interior monologue segment (Ho 4.1), and those in the surprise ending segment (Ho 4.2). (4) There was a moderately significant relationship between reading level and script recall, recall of the key inferences, and recall of the four sets of inferences (Ho 5, 5.1, and 5.2).

Conclusions. (1) The general conclusion was that script recall is related to the reader's ability to process the key details, derive the key inferences, and cluster them into key sets. (2) Merely recalling accurate details does not lead to script recognition. (3) Effective comprehenders are neither text-bound, nor do they overly elaborate. (4) Literary devices such as interior monologue with flashbacks and surprise ending effect comprehension by interfering with the processing of key details and the formation of key inferences. (5) Script and schema theory are useful for research purposes. (6) Literary analysis of a short story is helpful when examining comprehension. (7) Story grammar may need modification in order to deal with surprise ending stories, and to account for the influence of stylistic devices on comprehension. (8) Adults' theoretical analysis may differ from analysis produced empirically by adolescents. . . . (Author's abstract exceeds stipulated maximum length. Discontinued here with permission of author.) UMI

THE USE OF CUMULATIVE CLOZE PROCEDURE TO INVESTIGATE CONTEXTUAL BUILD-UP IN DEAF VERSUS HEARING READERS

Order No. DA8507200

McKnight, Tom K., Ed.D. *Virginia Polytechnic Institute and State University*, 1984. 124pp. Chairman: Richard T. Graham

The purpose of this study was to compare to describe deaf versus hearing readers' sensitivity to contextual build-up by examining each group's successive approximations of deleted noun meanings as constructed in cumulative cloze tasks.

The methodology of this study, a 2 x 5 x 2 factorial design, focused on successive predictions of deleted noun meanings in five cumulative cloze tasks completed by five deaf and five hearing readers at fourth–, sixth–, eighth–, tenth–, and twelfth-grade levels. Both for deaf and hearing readers, sentences within the five individual cumulative cloze passages where the greatest gain in comprehension occurred (MG sentences) comprised an alternative cloze test for five other readers at all five grade levels.

The results indicate that both deaf readers and hearing readers predict meaning more accurately given passage-level versus sentence-level contextual constraints. On this particular cumulative cloze task, deaf readers at grades eight, ten and twelve respectively. However, deaf readers in grades four and six performed significantly lower than their hearing counterparts. Hearing readers at all five grade levels and deaf readers at the eighth–, tenth–, and twelfth-grade levels increased in cumulative cloze accuracy as the number of exposure point in passage-level text, no significant differences were found in deaf versus hearing readers, predictions of target nouns at grade levels eight, ten, and twelve.

Deaf readers tended to abandon correct choices after predicting target nouns more often than did hearing readers. Additionally, deaf readers returned to abandoned correct choices less often than did hearing readers. Both semantic and grammatical acceptability of cumulative cloze responses improved for deaf as well as for hearing readers as the amount of available contextual information increased in passage-level text. MG sentences, proved to be more semantically and grammatically acceptable under passage-level versus sentence-level contextual conditions.

The results of this study indicate that given passage-level contextual constraints, deaf as well as hearing readers construct meaning similarly.

INFERENTIAL AND LITERAL COMPREHENSION AFTER ORAL AND SILENT READING

Order No. DA8512471

Miller, Samuel David, Ph.D. *The University of Michigan*, 1985. 145pp Chairman: Donald E. P. Smith

Responses on reading tests are measured by literal and inferential questions. If the kind of question is controlled, are there differences in comprehension due to modality (*i. e.*, silent, oral or listening)? Do such differences exist for good and poor readers? Eighty-three children in grades 3-5 read orally and silently and listened to grade appropriate passages from the *Analytic Reading Inventory* (Woods & Moe, 1977). They were then given questions which were classified as literal or inferential. As predicted, a repeated measures ANOVA revealed two significant two-way interactions (Question-Type x Level of Competence and Modality x Level of Competence). For poor readers, oral reading was equal to listening and both were superior to silent reading. For average readers, silent reading was equal to listening and both were superior to oral reading. For the good readers, oral and silent reading abilities were equal and both were superior to listening. Additionally, while no differences were found for poor and average readers' performances on literal and inferential questions, good readers answered literal questions more successfully than they answered inferential questions. Thus, results fail to support common assumptions regarding the greater ease of silent over oral reading or of literal over inferential comprehension for poor readers. However, findings do support a learning stage process within the transition from oral to silent reading and they are congruent with contentions of deficits in automaticity and attentional focus for poor readers.

EFFECT OF PREREADING ACTIVITIES AND STUDENTS' COGNITIVE STYLE ON READING COMPREHENSION

Order No. DA8508875

Murphy, Virginia A., Ph.D. *University of Wyoming*, 1984. 216pp.

The purpose of this study was to determine how prereading instruction was utilized by field dependent-independent, skilled and unskilled readers when compehending written text. Recent research in reading has indicated that individual differences in cognitive style have not yet been adequately defined, nor does reading instruction take them into consideration.

It was hypothesized that dependent readers because they are stimulus bound would better answer literal questions, whereas field independent readers would be better able to answer inferential questions, showing greater reliance on an internal, schema-based structure. This being such a strong force, it would cause them to make more false recognition errors.

An experimental method of research was used to acquire the data in a randomized, repeated measures design. Students were given the *Group Embedded Figures Test* to determine field dependence, and scores from the school's reading achievement test, the *Metropolitan Achievement Test*, were used to ascertain reading skill. Students were presented with three reading exercises, preceded by questions and statements designed to tap either the amin idea, a secondary idea, or an inappropriate idea. The reading passage was followed by multiple-choice, literal, inferential, and false recognition questions.

Results indicated: (1) There was a strong relationship between a subject's ability to separate a stimulus from a complex configuration and his ability to disambiguate and restructure verbal material. (2) Field independent readers were superior at answering both literal and inferential questions, especially when an inappropriate idea was given prior to reading. (3) Field dependent readers performed best on literal questions. (4) Field independent readers apparently had the ability to generate schemata for themselves, showing a deterioration

in performance when information was structured for them. (5) Field dependent readers apparently relied heavily on the structure presented prior to reading and were, therefore, handicapped both with an inappropriate idea and with a main idea. (6) Finally, field independent individuals excelled at false recognition with an inappropriate ideas, whereas field dependent persons were better when an appropriate idea was presented, indicating that field independent individuals used their own internal schema-based structure, but field dependent persons relied on the one presented by the teacher.

THE EFFECTS OF ILLUSTRATIONS ON THE COMPREHENSION AND INFERENCE BY DIFFERENTIALLY SKILLED READERS Order No. DA8514103

ORTIZ, MARIA C., PH.D. *State University of New York at Albany*, 1985. 133pp.

Comprehension and inferring processes of 120 eighth graders differing in reading ability were examined under one of four conditions: text and explicit illustration, text and ambiguous illustration, text only, and explicit illustration only. The illustrations were constructed so that they contained the same amount and levels of importance of information. Following schema theory it was predicted that regardless of reading ability, eighth graders would comprehend more textual information and make more inferences under the illustrated text conditions than under the text only condition. Comprehension and inferring were measured by multiple choice and cued recall items. Observations of reading behaviors (looking at the text, looking at the illustration, or looking elsewhere) were obtained for a subsample of 73 children while they inspected the materials. Canonical correlation and multiple regression analyses showed that contrary to what was expected, children in the text only condition comprehended more textual information, measured through multiple choice items, than did children in the illustrated conditions. Children's inferring did not differ under the illustrated text and the text only condition. An examination of the reading behaviors indicated that the frequency of looking at the explicit illustration was related to increased inferring, while the frequency of looking at the ambiguous illustration was related to increased comprehension of textual information. These results are interpreted in the light of both the focal attention hypothesis, and schema theoretic notions of comprehension.

THE EFFECT OF METACOGNITIVE STRATEGY TRAINING ON CRITICAL READING ABILITY Order No. DA8517750

PARSON, JACQUELINE MEANS. ED.D. *The Louisiana State University and Agricultural and Mechanical Col.*, 1985. 321pp. Director: Donald J. Richgels

The ability to read materially critically is recognized as a goal of educators. The purpose of this study was to investigate the influence of training metacognitive strategies on critical reading ability. Critical reading was defined as the ability to judge or evaluate written materials and to compare them against some norm or standard. Metacognitive strategies encourage a conscious awareness of and/or control over one's own mental processes. A review of literature indicated that past researchers had considered critical reading as a distinct skill area, but more recently, educators have begun to recognize it as a part of the overall comprehension process. Little evidence could be found in the literature of an effective method for increasing critical reading ability. It was the hypothesis of this study that training strategies which have been shown to increase overall comprehension could be specifically adapted to increase critical reading ability. Strategies selected for instruction included: questioning, summarizing, predicting, and speculating about the author s tone or purpose. This three-week study was conducted using 50 low reading ability college students as subjects. One experimental group was instructed through the use of a Metacognitive Strategies Training Package specifically designed to increase critical reading ability. These subjects were taught how to use selected strategies and then given the opportunity to practice using these strategies in a group situation using metacognitive techniques. A second experimental group was instructed with the same strategies through the use of written materials; no metacognitive element was included in this instruction. A third group served as a control group. Critical reading ability, general comprehension ability, appropriate use of instructed strategies, and changes in attitude were evaluated. Results were analyzed using a mixed analysis of variance procedure. Although subjects appeared to become more adept at using instructed strategies to critically analyze text material, limited statistically significant effects of instructional procedures were found. Possible reasons for non-significant results include: lack of appropriate testing instruments, lack of transference from oral tasks involved in instructional procedures to written requirements of testing instruments, poor attitude of students, and short time span of study.

THE USE OF A STORY SCHEMA BY FIRST GRADERS UNDER TWO CONDITIONS: STORY GENERATION AND STORY RECALL AND THE RELATIONSHIP BETWEEN STORY GRAMMAR SCORES AND *METROPOLITAN READINESS TEST* SCORES Order No. DA8518113

POST, ARDEN RUTH, ED.D. *University of Cincinnati*, 1985. 180pp.

The focus of this study was to investigate the relationship between first graders' use of a story schema, as measured by a story grammar analysis of two tasks: (1) child generated stories and (2) free oral recalls following oral story presentation, and their performance on the *Metropolitan Readiness Test* (MRT).

The subjects were 118 first graders who generated original stories and recalled two stories which were analyzed for the presence of story grammar categories and sub-categories (Stein and Glenn, 1979). Story grammar scores were correlated with subjects' pre-reading composite percentile ranks on the MRT. A comparison between stories analyzed the extent to which subjects' recall responses were story dependent.

Further exploratory analyses investigated relationships between MRT sub-tests and story grammar measures and between story generation and story recall.

Low, but positive, correlations were found between the MRT pre-reading composite and the number of story grammar (1) categories generated, (2) sub-categorical statements generated, (3) categories recalled, and (4) sub-categorical statements recalled. No differences were found between stories on the number of categories and sub-categorical statements recalled or the distribution of scores across categories, but a significant difference was found on the distribution of scores across sub-categories. Exploratory correlations indicated that the MRT language sub-test produced the highest correlation (r = .38) with story grammar recall measures. Story generation and story recall were moderately correlated. The most frequently generated and

recalled categories were settings, initiating events, and consequences.

The results indicate a weak relationship between the MRT and story grammar measures. It is suggested that the MRT measures a narrow range of readiness factors from the current state of reading instruction on which it is based. The story grammar analyses assess a concept of story which is omitted from traditional readiness instruments. Some children, who score low on traditional readiness instruments, score high on story grammar measures. Reading placements and instruction, based on story structural knowledge, or a story factor, rather than traditional readiness tests, may foster reading acquisition for some children. To optimally measure story comprehension, story grammars may need to be broadened beyond the structural analysis of stories.

THE SCRIPT SCHEMA IN CHILDREN'S COMPREHENSION AND MEMORY

Order No. DA8515658

SELTZER, JOEL A., PH.D. *City University of New York*, 1985. 120pp. Adviser: Shirley Feldmann

This study examined how script strength, prior scriptal knowledge, and age differences affect children's comprehension and memory, and relate to reading skill. A script schema represents stereotypical action sequences of familiar events that are goal-oriented, for example, going-to-a-restaurant. Script strength refers to a script's ability to evoke a familiar temporal-causal sequence of events. Strong--canonical--schemata facilitate story recall. Prior knowledge and experience affect performance as measured by inference-making ability, recall, and errors in recall with words, sentences, and text. Skilled readers spontaneously use strategies that facilitate comprehension and recall.

A strong script was predicted to facilitate comprehension and recall of a picture series. Prior scriptal knowledge was expected to facilitate performance, and older children were predicted to have higher comprehension and recall than their younger counterparts.

The subjects were 139 second- and fourth-grade children. They were shown a picture series evoking the script getting-ready-for-school-in-the-morning. Within each grade, children were randomly assigned to one of six conditions in which a script-header--or title--was presented before or after exposure to the stimuli and varied by three levels of canonical strength. The children were asked to generate a story as a measure of their comprehension and were given traditional memory tasks to measure verbal recall, visual recognition, and serial reconstruction of the pictures.

As predicted, the strong script-header was found to facilitate comprehension and serial reconstruction ability. Children in the weak script-header condition produced more intrusions in their stories. Prior knowledge facilitated only the ability to produce more detailed information. Recall and recognition were not affected by the treatments. Fourth graders performed better than second graders on most tasks. A modest relationship between second grade task performance and reading ability was noted.

It was concluded the children's level of information processing must be consistent throughout a task to facilitate comprehension and recall. Scripts that organize new information to fit the learner's knowledge base may be a useful pedagogical tool.

CLASSROOM READING AND THE WORK OF ARTHUR GATES: 1921-1930

Order No. DA8510172

VANCE, ELLEN RUTH, ED.D. *Columbia University Teachers College*, 1985. 344pp. Sponsor: Dorothy Salley Strickland

This study has attempted to make clear an accepted definition of reading: it examines Arthur Gates' contribution to the field, both in the form of the research he produced, in his statements about reading and its definition through classroom practice. Of particular importance is the underlying relationship of his theoretical presuppositions and its application to an instructional program. Attention, then, is to the research that was the background for the construction of tests of reading ability and textbooks that were to carry out instructional objectives.

The study examines beginning assumptions Gates made about reading ability, how those assumptions were made explicit and confirmed through research studies and, reciprocally, how the studies themselves served to clarify his assumptions and to advance his argument. It analyzes the nature and substance of his inquiry, in the kinds of questions he asked and what he elected to investigate. It looks at his method as a selected approach to inquiry to determine how he went about his investigation and how his method, like his questions, served to fulfill his research objectives, allowing for the analysis and interpretation of information. And, having figured a way to investigate problems, the study looks at what Gates succeeded in proving: what he presumed to derive from his research and how he construed his findings.

AN INVESTIGATION OF THE EFFECTS ON READING COMPREHENSION OF TEACHING NINTH GRADERS TO BECOME INDEPENDENT SUMMARIZERS OF SOCIAL STUDIES MATERIALS

Order No. DA8512250

WALKER, LYDIA ANN, PH.D. *University of Missouri - Columbia*, 1985. 229pp. Supervisor: Veralee B. Hardin

Purposes. The purposes of this study were to determine whether: (1) ninth graders could be taught to summarize paragraphs and entire selections, (2) their improved ability to summarize was associated with an improved ability to answer comprehension questions, (3) the students could verbalize learned rules after instruction, and (4) the students could maintain their improved abilities 3½ weeks after instruction.

Methodology. Three ninth graders who met predetermined criteria were selected to be subjects. They came from homes which valued education. They were volunteers with near perfect attendance and no overt emotional problems. Their intelligence, spelling, handwriting, and reading decoding were average, but their ability to summarize and answer comprehension questions was below average. These students were taught on a one-to-one basis to apply a set of explicit summarization rules for 25 minutes daily over a 15-day period. The research design was a multiple baseline, a quasi-experimental variant of single case design.

Results. Visual analysis of graphed results at the end of instruction revealed the following: (1) Two of three students improved in their ability to summarize paragraphs and entire selections. (2) One of the three students improved in his ability to answer comprehension questions. (3) Two of the three students showed an increased ability to verbalize the summarization rules.

However, during follow-up *all* students showed improvement in their ability to summarize paragraphs and entire selections and two of the three showed improvement in their ability to answer comprehension questions.

Conclusions. The following conclusions were reached within the limitations of this study. (1) Ninth graders' summarization of paragraphs and entire selections may be improved through teacher modeling of explicit summarization rules. (2) Improved summarization abilities may be associated with an improvement in the ability to answer comprehension questions for some, but not all, students. (3) An ability to verbalize summarization rules is not necessarily reflective of a student's ability to apply those rules. (4) Students most likely to benefit from instruction in summarization are those who are highly motivated to improve their grades, are active in the learning process, and are verbally fluent. (5) Naturally occurring text can be used for the assessment of the outcomes of complex comprehension strategies.

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